SOME COMMENTS ON *RHEUMAPTERA HASTATA* L. (LEP.: GEOMETRIDAE) IN IRELAND.

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BARRETT (1902) has provided a quite comprehensive account of the life history of this moth, describing the larger nominate and the smaller moorland form, now known as *nigrescens* Cockerell, and noting that the larva feeds upon birch and bog myrtle, but not assigning either to a particular form of the moth, and adding that according to Hofmann the larva also feeds upon sallow and *Vaccinium uliginosum,* although surely this is a reference to the insect's habits on the Continent? Nevertheless these two plants appear as normal foodplants of *hastata* in Britain in South (1939), although in the appendix it states that *Vaccinium* and *Myrica* refer only to the northern form, and that *hastata,* i.e. the larger southern form, feeds only on birch; this view is shared by Ford (1955). However, Newman and Leeds (1913) omit sallow and *Vaccinium* as larval foodplants as does Skinner (1984), and these authors assign bog myrtle to *nigrescens* and birch to the nominate form.

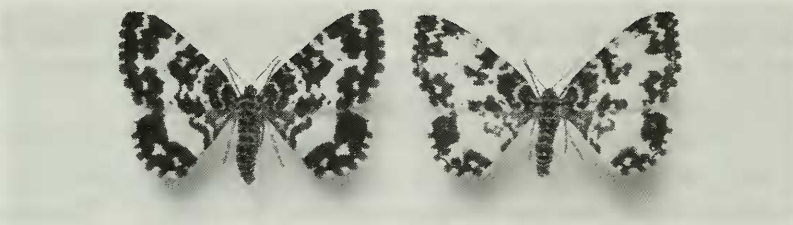
Of the insect's presence in Ireland Barrett states that it is local, and that in the west there appears to be greater diversity than in Britain, the majority of specimens being of the southern England form, while South quotes Kane's view that in Ireland only the southern form occurs, and that *subhastata* (i.e. *nigrescens*) has not been noted. Unfortunately, Baynes (1964) produces no more than a vague comment on the moth's distribution in Ireland, with no mention of the form found there or the larval foodplant! B. Skinner, contrary to Kane's view, maintains that both subspecies occur in Ireland.

In early June 1987 I came across a flourishing colony of *hastata* in a restricted boggy field containing bog myrtle, but with no birch in the vicinity, near Newport, Co. Mayo; over a score of specimens were seen in a very short time, and all those captured were of the larger nominate form. I have never seen this species as commonly as this in England,even many years ago before its decline. My only previous encounter with the insect in Ireland was the capture of a very large female which was flying over bog myrtle near Rinnamona in the Burren of Co. Clare, 27.v.1975; subsequent searches for the larvae in this locality have proved fruitless, and the area is now being drained. It is curious that despite many visits to Ireland by lepidopterists after the discovery there of *Calamia tridens* Hufn, almost nothing has appeared in print about *hastata,* although J.Bradley and E. Pelham-Clinton (1967) refer to the finding of *hastata* larvae on bog myrtle alongside the Lisdoonvarna-Ennistymon road, curiously this appearing in an account of the moths of the Burren, although at no point does this road traverse the Carboniferous Limestone of the Burren.

In late August 1987 I obtained many *hastata* larvae, mainly about full-fed, from bog myrtle near Westport, Newport and Partry, Co. Mayo, and from near Manor Hamilton, Co. Leitrim.They completed their growth on this plant and the resulting moths which emerged in May 1988 were all of the larger southern England form, except one, a slightly smaller specimen that would fit unobtrusively in a series of *nigrescens* from the southern borders of the Highlands of Scotland. I have seen a similar specimen in the collection of R. Chatelain, a moth reared from a solitary larva found on bog myrtle in western Co. Galway. Skinner gives the size of subspecies *hastata* as 34 - 38 mm and *nigrescens* as 30 - 36 mm. My short series of *hastata* from Surrey and Sussex are uniform in size measuring 35 mm, and my *nigrescens* from Inverness-shire are similarly of uniform size, measuring 29 - 30 mm; the former are all feral specimens, the latter bred from feral larvae. My Irish *hastata* vary somewhat in size, most being about 35 mm wing-span, i.e. the same size as my examples from S.E. England, the largest being 38 mm and the smallest 32 mm. The species in the National Collection is contained in two drawers, one drawer for each subspecies; all the Irish specimens are classified as being of the nominate form, and amongst the English ones are several considerably undersized. The series of *nigrescens* illustrates very clearly that individuals from the Hebrides and the far north-west of Scotland are darker than those from the southern borders of the Highlands, and are differently marked, those from the latter area appearing simply as diminutive examples of subsp. *hastata,* i.e. they are smaller, but not darker.Thus the odd undersized individuals encountered in southern Britain and Ireland should be recognised for what they are, simply small specimens of nominate *hastata.*

What I have not seen previously mentioned is that in Ireland nominate *hastata* is associated with bog myrtle; however, in Co. Kerry where the insect occurs, there are localities in which birch and bog myrtle occur in close proximity — in such localities is the moth selective, being associated with only one of these plants, or are both plants utilised indiscriminately? However, I can find no record of *hastata* larvae feeding on birch in Ireland.

The sample of this moth that I possess from Ireland differs in another respect from those from southern Britain. Barrett observes that the latter as a race is tolerably constant, only varying a little in the size of the black markings and the extent to which they are joined together; by contrast he observes that in the west of Ireland specimens show greater local diversity, in markings as well as size. My own observations confirm this, and in particular a large proportion of the moths caught, or bred from larvae, from Co. Mayo have the black markings reduced, being referable to ab. *laxata* Krul., itself quite a variable form, although none approaches the more extreme f. *demolita* Prout, nor do any show tendency towards increased black pigmentation. The proportion of f. *laxata* would appear to be as high as 35% to 40%, and therefore *hastata* in Co. Mayo might well be



Left: Rheumaptera hastata L., Partry, Co. Mayo, 23.v.1988 (bred). (x1).
Right: ab. *laxata* Krul., Newport, Co. Mayo, 18.v.1988 (bred). (x1).

designated dimorphic. A further interesting observation is that all the colonies of larvae I examined in Co. Mayo were remarkably free from parasites, in marked contrast with my experiences with *nigrescens* in Scotland.

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Moths and bats: the diet of Lady Ursula Eak

On a cool evening in 1989 at St Erth (West Cornwall) I was running a light for the Cornwall Trust for Nature Conservation whilst the local bat group wandered up and down the river bank with their bat detectors at full blast. Only 43 moth species were found, including three specimens of the migrant *Agrotis ipsilon,* as well as three beetles including the first *Dytiscus marginalis* that I have had to light. It is likely that many of the best moths were eaten by bats before they arrived at the light.

As the night wore on the bat people disappeared. One of their number, Ginny Little from Penzance, joined us at the edge of the white sheet, bringing with her a tiny lady companion, Lady Ursula Eak. This lady (a noctule bat) had come to feed. Ginny had become interested in moths some years ago (I suspect purely to feed her bats) and now ran a moth trap. She assured me that she only fed the common species to the sick and injured animals in the "bat hospital"she runs. An aquaintance in Penzance